



**INTERNATIONAL INTER UNIVERSITY OPEN CYBERSECURITY  
COMPETITION "VolgaCTF-2016"**

**September 12 – 16, 2016**

**COMPETITION SCHEDULE**

Competition Venue: 99 Alexey Tolstoy Str., Holiday Inn  
Website: <http://volgactf.ru/>

## PARTICIPANTS

	National Research Nuclear University MEPhI	BalalaikaCr3w
	Lomonosov Moscow State University	Bushwhackers
	Saratov State University	v0rt3x
	Samara State Technical University	Magic-Hat
	Saratov State Technical University	IBS++
	Samara National Research University Named after S.P. Korolev	Koibasta
	Penza State University	ked
	Scientific Company of the Russian Defence Ministry	Pixels
	Ruhr-Universität Bochum	FluxFingers
	Udmurt State University	E-Vapers
	Kazakh National Technical University named after K.I. Satpaev	KazNITU
	Ural Federal University named after the first President of Russia B.N. Yeltsin	Destructive Voice
	University of Washington	BatmansKitchen
	University of Applied Sciences Western Switzerland	SwissMadeSecurity
	Novosibirsk State University	EpicFairPlay
	Tomsk State University	HETTO

## Monday, September 12

**Arrival of  
participants**

**Arrival and accommodation**

## Tuesday, September 13

<b>9.30 – 10.00</b>	<b>Registration of participants and guests of the Competition</b>	<b>99 Alexey Tolstoy Str. Holiday Inn, Samara</b>
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<b>10.00 – 10.45</b>	<b>OPENING CEREMONY</b>
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Host - E.N. Levin, Leading Engineer of Samara University Research Laboratory for Geoinformatics and Information Security (RL-55), Deputy Chairman of the Competition Organizing Committee

Welcoming speech by organizers:

S.V. Kazarin – Deputy Chairman of Samara Region Government – Head of Samara Region Information Technology and Communication Department, Chairman of the Competition Organizing Committee;

E.V. Shakhmatov – Rector of Samara University;

V.V. Sergeev – Chairman of VolgaCTF-2016 Organizing Committee, Director of Institute of Informatics, Mathematics and Electronics of Samara University

Speech by partners and sponsors.

<b>10.45 – 11.15</b>	<b>Introduction of participating teams. Draw</b>	<b>"Saransk" Hall</b>
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<b>11.15 – 13.15</b>	<b>Seminars</b>	<b>"Saransk" Hall</b>
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<b>11.15 – 12.15</b>	<b>Eldar Beybutov - Positive Technologies</b> <b>"Application Layer Security, Problems of Web Application Protection"</b>
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*(In comparison with attacks lying low under the OSI model, application layer attacks are often more efficient and destructive. To solve the application security problems Web Application Firewall class products are designed, aimed to protect the program at the application level, and logics of application operation. During the session, issues of the effectiveness of traditional approaches, search for "the silver bullet", as well as the best practices of web application shielding, and the main trends of the development of this approach will be considered.)*

<b>12.15 – 13.15</b>	<b>Anton Lopanitzin (Bo0om) - ONSEC</b> <b>"DNS-Based Attacks"</b>
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*(Examples of attacks through a simple, but at the same time daily-used system. Using DNS features, we can scan ports on the target machine, or even perform the remote execution of an arbitrary code.)*

<b>13.15 – 14.15</b>	<b>Lunch</b>	<b>1st Floor Restaurant</b>
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<b>14.15 – 18.30</b>	<b>Seminars</b>	<b>"Saransk" Hall</b>
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<b>14.15 – 15.15</b>	<b>Maksim Denisenko - Sberbank</b> <b>"Big Data in Computer Incident Investigation"</b> <i>(We will consider the computer crime investigation process on the example of a financial institution. How can data that have never been used before, help the investigation?)</i>
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<b>15.15 – 16.15</b>	<p>Mariya Garnaeva - Kaspersky Laboratory  "Target Attacks: In Quest Of Artifacts"  <i>(Often, victims of cyber attacks are more concerned about the answer to the question "who?" than about technical details of the attack. Determination of attack sources is based primarily on artifacts found in the code of programs and management servers. How security companies differ Chinese, or Russian, attacks from all the others? An overview of real investigations held by "Kaspersky Laboratory" will be presented.)</i></p>
<b>16.15 – 16.30</b>	Coffee break
<b>16.30 – 17.30</b>	<p>Vyacheslav Kopeytzev - Kaspersky Laboratory  "Honeypot Evolution"  <i>(The report will describe various types of Honeypot, their evolution, existing solutions, and different aspects of their application.)</i></p>
<b>17.30 – 18.30</b>	<p>Dmitry Evdokimov (D1g1) - Digital Security  "How Does Malware Feel on iOS Devices"  <i>(This report will consider how malicious code feels today on iOS devices without JailBreak. And, of course, we will answer the question, whether the availability of the latest version of operating system and the absence of jailbreak on the device ensure that there is no malicious code.)</i></p>
<b>C 19.10</b>	Recreational activities

## Wednesday, September 14

<b>9.00 – 13.15</b>	<b>Seminars</b>	<b>"Saransk" Hall</b>
<b>9.00– 10.00</b>	<p>Alexey Repin - GasInformService  "Security of Wireless Data Transmission Networks"  <i>(Security of Wi-Fi networks. Basic data transmission protocols, advantages and disadvantages. Encryption algorithms. Methods of compromising WI-FI networks and ways of counteraction.)</i></p>	
<b>10.00– 11.00</b>	<p>Roman Tretyakov - Sberbank-Technologies  "Cybersecurity in Banking Systems"</p>	
<b>11.00 - 11.15</b>	Break	

<b>11.15 – 13.15</b>	Boris Ryutin - Digital Security Anton Kochkov - Security code "Radare2: from A to Z" <i>(During the master class, we will demonstrate the basics of using the Radare2 framework, and show a few practical examples. In particular, we will analyze a simple malicious program, and demonstrate solutions of some previous CTF tasks for PC (x86, x64), ARM u MIPS architectures.)</i>	
<b>13.15 – 14.15</b>	<b>Lunch</b>	<b>1st Floor Restaurant</b>
<b>14.15 – 19.30</b>	<b>Seminars</b>	<b>"Saransk" Hall</b>
<b>14.15 – 16.15</b>	Boris Ryutin - Digital Security Anton Kochkov - Security code "Radare2: from A to Z" <i>(master class continuation)</i>	
<b>16.15 - 16.30</b>	<i>Coffee break</i>	
<b>16.30 – 17.30</b>	Roman Bogdanov - Perspective Monitoring (InfoTeKS) "Rule Development in Snort" <i>(The report will demonstrate the main features of Snort language, which is used for signature analysis rule development. Key features of the language syntax and possible scenarios for its use will be considered. A practical example of the rule development in Snort will be demonstrated.)</i>	
<b>17.30 – 18.30</b>	Vladimir Eliseev - InfoTeKS "Machine Learning Techniques for Abnormal Behavior Detection " <i>(The problem of information system abnormality detection will be considered. The key concepts and underlying elements of common approaches to the detection of atypical events will be noted. Several methods used for abnormality detection, and based on pre-training, will be presented.)</i>	

## Thursday, September 15

<b>9.00 – 13.15</b>	<b>Competition</b>	<b>"Kazan" Hall</b>
	Final, Part 1	
<b>11.00–11.15</b>	<i>Coffee break</i>	
<b>13.15 – 14.15</b>	<b>Lunch</b>	<b>1st Floor Restaurant</b>
<b>14.15 – 20.00</b>	<b>Competition</b>	<b>"Kazan" Hall</b>
	Final, Part 2	
<b>16.15–16.30</b>	<i>Coffee break</i>	

## Friday, September 16

<b>11.00 – 13.00</b>	<b>Task Analysis</b>	<b>"Saransk" Hall</b>
<b>13.00 – 14.00</b>	<b>Awards Ceremony. Closing Ceremony</b>	<b>"Saransk" Hall</b>